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SID 62-215

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(Unclassified)

28 February 1962 NAS 9-150 4,52.3

Approved by


J. W. Paup
Vice President and Apollo Program Manager

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NORTH AMERICAN AVIATION, INC.
SPACE and INFORMATION SYSTEMS DIVISION

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1. SCOPE

1.1 Scope. - This specification covers the requirements for the Command Module Recovery Logistic Equipment Test Boilerplate. The boilerplate shall be used to test recovery, handling and transport procedures.

2. APPLICABLE DOCUMENTS

2.1 General. - The following documents shall form a part of this specification:

Government Documents

Air Force

ARDCM-80-1,
Volume 1

Handbook of Instructions for
Aircraft Designers

National Aeronautics and Space Administration

NCP 200-2

Quality Assurance Provisions for
Space Contractors, dated
15 December 1961.

Non-Government Documents

Space and Information Systems Division, North American Aviation, Inc.

SID 62-240

Preparation for Delivery of Airborne
Equipment, General Requirements
For

3. REQUIREMENTS

3.1 General. - The configuration of the boilerplate shall be similar to the configuration of the prototype command module. No functional equipment shall be installed in the boilerplate. The configuration of the boilerplate is shown in figure 1.

3.2 Components. -

3.2.1 Arrangement. - All simulated equipment in the boilerplate shall be placed in positions similar to equipment positions in the prototype command module. The boilerplate shall include:



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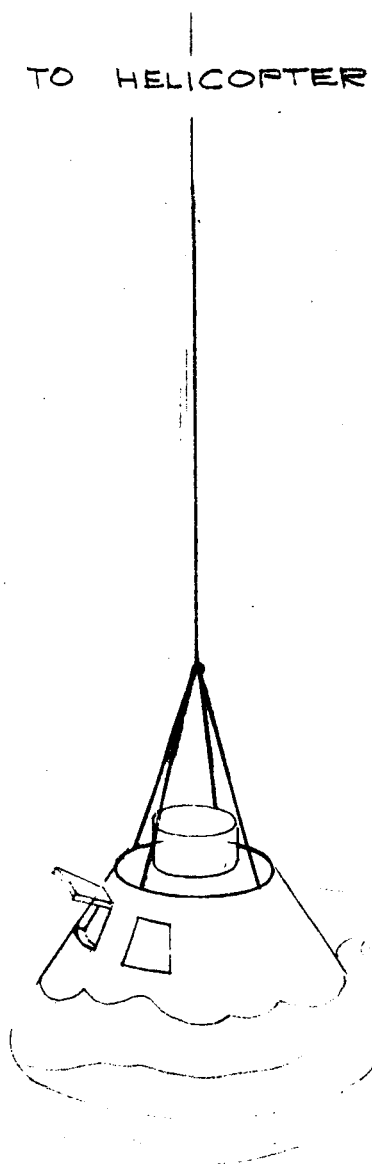


Figure 1. Boilerplate #11 Logistic Recovery

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(a) Command Module Structure

(b) Recovery Logistic Equipment

3.2.1.1 Command Module Structure. - The command module structure of the boilerplate shall be similar to the prototype command module. The command module shell shall not contain a lower compartment nor landing parachutes.

3.2.1.2 Recovery Logistic Equipment. - Recovery logistic equipment shall be the only functional equipment installed in the boilerplate. Recovery logistic equipment shall include support hooks and all equipment necessary to demonstrate the handling capability of the command module at a land or water recovery site.

3.3 Performance. -

3.3.1 General. - The boilerplate shall have the same handling characteristics as the prototype command module. The recovery logistic equipment shall be tested under varying impact orientation and varying weather conditions in water and on land. Hoisting and jacking provisions for the boilerplate shall be the same as for the prototype command module.

3.4 Design and Construction. -

3.4.1 General. - The boilerplate shall be constructed of materials that will insure structural soundness. ARDCM-80-1, Volume 1, shall be used for guidance and reference material in the design and construction of the boilerplate.

3.4.2 Weight. - The boilerplate shall have a mass and center of gravity similar to the mass and center of gravity of the prototype command module.

3.4.3 Water Protection. - The boilerplate shall be watertight.

3.5 Ground Support Equipment. -

3.5.1 General. - Ground support equipment shall be required to transport, demonstrate and test the boilerplate. The requirements for ground support equipment are not a part of this specification.

4. QUALITY ASSURANCE PROVISIONS

4.1 General. - Quality assurance provisions shall be in accordance with the applicable portions of NASA Bulletin NCP200-2.

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4.2 Inspection and Tests. - Inspections and tests to determine conformance of the boilerplate to contract and specification requirements shall be conducted prior to submission of the boilerplate to NASA or in the presence of a NASA representative. Results of inspection tests on major components shall be submitted to NASA for review. Other acceptance test data relative to this specification shall be maintained and made available for review to NASA upon request.

5. PREPARATION FOR DELIVERY

5.1 Airborne Equipment. - Airborne Equipment shall be prepared for delivery in accordance with Specification SID 62-240.

5.2 Transportation. - Transportation to testing site, as required, shall be provided for the boilerplate.

6. NOTES

6.1 Definitions. - A boilerplate is a simulated spacecraft module for pre-developmental and/or developmental tests leading to the design of a prototype module.